

XIII. *Characters of some undescribed Species of Phytophaga belonging to the Families Cassididæ and Hispidæ.* By J. S. BALY, F.L.S.

List of Species.

CASSIDIDÆ.

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HISPIDÆ.

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Fam. CASSIDIDÆ.

Dolichotoma distincta.

Late rotundata ♂, subrotundata ♀, modice convexa, subtus (cum capite) nigra, nitida, supra viridi-ænea, subopaca, pube brevissimâ depressâ adspersa; thorace fere impunctato, utrinque depresso, medio tenuiter canaliculato, antice leviter carinato; elytris minus distincte rugoso-punctatis, antice retusis, gibbosis, margine valde explanato (præsertim in medio ♂), obsolete transversim ruguloso, medio maculâ magnâ inæquali subrotundatâ ornato.

Long. $7\frac{1}{2}$ lin.

Hab.—Nicaragua.

Much larger than *D. biplagiata* and its allied species, its elytra more finely punctured and less rugose, being nearly intermediate in punctation between *D. pubescens* and *biplagiata*.

Calaspidea Bacchus.

Subrotundata, postice paullo angustata ♂, magis ovata ♀, convexa, nigro-ænea, subnitida; elytris sanguineis, distincte punctatis, limbo exteriori (basi dilatato) maculisque impressis subseriatis nigro-æneis.

Long. $7\frac{1}{2}$ - $9\frac{1}{2}$ lin.

Hab.—Para.

Antennæ black, longer than the thorax, robust, tapering at base and apex, third joint distinctly longer than the fourth. Thorax twice as broad as long, sides somewhat obliquely rounded and dilated to beyond the middle, thence nearly parallel and slightly rounded to the base; surface subopaque, broadly excavated on either side, excavation impressed with a shining obtusely angled line; middle of disc nitidous, impressed with a fine longitudinal groove. Elytra much broader than the thorax, shoulders prominent, obtusely rounded; sides obliquely rounded and dilated nearly to their middle, thence obliquely rounded and narrowed to their apex; above convex, distinctly punctured on the disc, the latter shining; the dilated margin subopaque, more finely punctured; sanguineous, the outer limb, dilated on the humeral margin, and numerous depressed spots scattered over the surface, nigro-æneous; those on the disc small and arranged in nearly regular longitudinal rows; those on the dilated limb larger and less regularly placed.

Most nearly allied to *C. columbiana*; its antennæ are shorter and rather more robust, the sides of the thorax are less oblique; the nigro-æneous border of the elytra is much broader, and the patches of the same colour on their dilated limb are much larger than in that species.

Calaspidea connectens.

Subrotundata ♂, subtriangularis ♀, convexa, viridi-ænea, subnitida, subtus nigra, nitida; thorace longitudine duplo latiori, lateribus ad medium minus oblique ampliatis, hinc ad basin fere parallelis, basi ipsâ paullo convergentibus, obtuse rotundatis; elytris subopacis, elevato-reticulatis, reticulis nitidis, areolas minores includentibus, vittâ latâ sublaterali sanguineo-reticulatâ, infra basin ad apicem extensâ, postice angustatâ ornatis; antennis thorace paullo longioribus, gracilibus.

Long. 7-9 lin.

Hab.—Pebas, Upper Amazons.

The present insect forms almost an intermediate link between *C. regalis* and *C. discors*, agreeing in colouring with the former, and in form of thorax, antennæ, and sculpture of elytra with the latter: from *C. regalis* it may be at once known by the much more slender antennæ, and by the finer sculpture of the elytra; the form of the thorax is also entirely different; in *C. regalis* this part of the body is much broader, and the sides are obliquely rounded, and dilated considerably beyond their middle; in *C. connectens* (as also in *C. discors*) the thorax is narrower, its sides are first produced almost directly outwards (being only slightly and obliquely rounded) to their middle: thence to their base they are nearly parallel, and very obtusely rounded. The diagnosis between *C. discors* and the species under consideration is rather more difficult: the two insects entirely agreeing in the slender antennæ and form of thorax, but differing both in colouring and in the general form of the body. The ♂ of *C. connectens* (judging from a single specimen in my collection) is more rotundate and less narrowed towards the apex of the elytra; whilst the ♀ is more decidedly triangular in form, the elytra being broader and less narrowed at the shoulders than in *C. discors*; the red colour on the elytra is confined in *C. discors* to a large ovate patch on the anterior half of the dilated border; in *C. connectens* it forms a broad sub-marginal stripe, similar to that on the elytra of *C. regalis*.

Mesomphalia honorata.

Subtriangularis, modice convexa, nigro-ænea, subopaca; elytris pube brevi cinereâ sparse adspersis, ante medium gibbosis, disco tenuiter lateribus sat profunde punctatis, elevato-reticulatis, reticulis subnitidis, areolas parvas includentibus, plagâ magnâ trigonatâ, ab humero ultra medium et intus fere ad suturam, extensâ fulvo-flavâ fusco notatâ ornatis.

Long. 8½ lin.

Hab.—Bolivia.

Antennæ black; thorax more than twice as broad as long, very slightly emarginate in front, sides produced

nearly directly outwards to beyond their middle, thence very obtusely rounded and slightly converging to their base; upper surface very minutely punctured, slightly excavated on either side, impressed in the medial line with a very faint longitudinal groove. Elytra much broader than the thorax, shoulders not produced, obliquely rotundate-ampliate; sides rotundate-angustate from the shoulders to the apex, the latter conjointly acute; upper surface gibbose before the middle, the gibbosity obtuse, slightly compressed on the sides, space in front of the gibbosity covered with two or three large foveæ, remainder of the surface (base and apex of the dilated border excepted) covered with slightly raised, irregular reticulations; those on the yellow patch (which, stretching along the outer margin of each elytron from the shoulder to beyond the middle, extends inwards nearly to the suture) coarser and more elevated than the rest; outer margin broadly dilated, the portion of its outer edge covered by the yellow patch deeply punctured.

This insect resembles in form *M. textilis*; its colour, however, is entirely different, and the lateral margin of the elytra is much broader and flatter.

Batonota collaris.

Subtriangularis, convexa, subtus nigra, nitida, supra opaca, et pube brevi cinereâ sparse adspersa; antenarum basi pedibusque anticis intus, obscure flavis; thorace scutelloque obscure rufis, illo antice carinato; elytris obscure viridi-æneis, antice retusis, transversim gibbosis, sat profunde punctatis, interstitiis obsolete elevato-reticulatis; margine laterali tenuiter punctato; humeris antrorsum paullo prominulis, apice angulatis, obtusis, dorso carinatis.

Long. $5\frac{1}{2}$ lin.

Hab.—Pebas, Upper Amazons.

Similar in form to the ♀ of *B. truncata*, the shoulders less produced laterally, more obtuse, their anterior margin more distinctly rounded. Elytra deeply punctured, the raised reticulations ill-defined, enclosing small irregular spaces.

Batonota rufo-ornata.

Sub-triangularis, convexa, subtus nigra, nitida, supra obscure nigro-ænea, opaca, pube brevissimâ cinereâ

adpressâ parce adpersa; thorace tenuissime punctato, antice carinato, basi quadri-impresso, antice obsolete rufo marginato; elytris basi retusis, transversim gibbosis, minus profunde substriatim punctatis, vittis elevatis tribus, duabus prope suturam altera prope disci medium positis, postice abbreviatis, inter se ramulis connexis instructis, margine late explanato, parce tenuiter punctato; humeris lateraliter productis, margine antico concavis, apice acutis, dorso carinatis; utrisque plagis duabus, unâ parvâ reticulatâ dorso pone gibbum, alterâ subovatâ submarginali vix ante medium, fulvo-rufis, ornatis.

Long. $6\frac{1}{2}$ lin.

Hab.—Nicaragua.

Very similar in form and sculpture to *B. insidiosa*; the anterior border of the shoulders is more distinctly concave, the dilated limb of the elytra is metallic green beneath, and the fulvo-rufous patch is longer, extending upwards nearly to the base of the limb.

Fam. HISPIDÆ.

Alurnus ornatus.

Subelongatus, niger, nitidus; thorace antice subcylindrico, ad latera et ad basin sat profunde et crebre punctato, sanguineo, margine basali medio paullo dilatato, utrinque abbreviato, punctoque apicali ad marginem adfixo, nigris; elytris oblongis, flavis, apice maculisque tribus utrisque nigris.

Long. 11 lin.

Hab.—Nicaragua.

The antennæ in my specimens are unfortunately broken, but the four lower joints are more slender than in any of the other known species of the genus, the third joint is more than three times the length of the fourth. Thorax much narrower than the elytra, narrowed and subcylindrical in front, transversely convex at the base, basal half and sides coarsely and almost rugosely punctate, middle portion of the anterior disc distantly punctured. Elytra broader and shorter than in *A. d'Orbigny*, punctured in a similar manner, yellow; their apical fourth, a patch on the humeral callus, a second near the suture

halfway between the base and middle of the disc, and a broad, slightly curved, transverse fascia, placed just below the middle, and abbreviated some distance before reaching either the suture or the outer margin, black.

Eurispa Odewahnii.

Filiformis, subcylindrica, nigra, sub opaca, profunde punctata, albo-squamulosa, abdominis segmentis basi rufo-piceis; capite ante oculos valde producto, thorace cylindrico, pallide rufo-piceo, vittis tribus nigro-fuscis (duabus exterioribus minus distinctis) ornato; elytris sordide albo-fuscis, anguste flavo marginatis, apice productis, utrisque spinâ brevi acutâ desinentibus, elevato-costatis, interstitiis profunde punctato-striatis; unguibus obsoletis.

Long. $3\frac{1}{2}$ -4 lin.

Hab.—Gawlor near Adelaide, South Australia.

This species, which was first sent to this country by Mr. Odewahn, may be at once known from *E. albipennis* by the entirely different form of the head; in the insect now described, that portion of the face on which the antennæ are placed, is strongly produced anteriorly and broadly truncate, the eyes being placed laterally halfway between the truncate apex and the thorax. Head coarsely granulose, deeply punctate, the upper surface of the frontal prominence impressed with a deep longitudinal groove. Thorax one-third longer than broad, narrowed from base to apex, sides straight, sinuate just in front of the base, and immediately behind the anterior angle; disc deeply impressed with large round punctures, each one of which (as well as those on the head) is occupied by a single broadly obovate white scale. Scutellum shining, black. Elytra scarcely broader than the thorax, nearly parallel, narrowed at the apex, and produced far beyond the extremity of the abdomen into a distinct tail, the apex of each elytron being still further produced into a short, flat, broad, acute spine; upper surface subcylindrical, deeply striate-foveolate, each puncture being furnished with a single scale, somewhat narrower than those clothing the head and thorax; each elytron with four distinct costæ, the first and fourth unite just before the apex and form a single costa, which runs onwards

until it reaches the apex of the caudal spine ; the second and third unite just below the middle of the elytron, and are continued onwards as a single raised line, which gradually becomes less distinct, and is entirely lost before reaching the point of junction of the first pair. Legs coarsely granulose, clothed, as well as the abdomen, with adpressed obtuseiform scales, those on the tarsi narrow and almost linear.

E. Odewahnii agrees with *E. albipennis* in the total absence (as a separate joint) of the fourth or claw joint of the tarsi ; in both species the third is entire, and evidently composed of the third and fourth so closely soldered together, that not the slightest trace of sutural lines is visible even under a powerful lens ; the unguiculi are entirely absent. This abnormal form of the tarsus was overlooked by me at the time of publication of the Catalogue of *Hispidae* ; and is, I believe, peculiar to the two above-named insects. I cannot call to mind another instance amongst the extensive tribe of *Phytophaga* in which the claw is not fully developed as a distinct joint of the tarsus.

Eurispa normulis.

Filiformis, subcylindrica, nigra, nitida, albo-squamosa ; capite supra, femoribus tibiisque pallide rufo-piceis, thorace elytrisq[ue] sordide albidis ; illo crebre foveolato-punctato, fusco-trivittato, vittis duabus exterioribus minus distinctis ; his apice attenuatis, utrisque in caudam acutam dehiscentem productis, striatofoveolatis, quadricostatis ; capite ante oculos vix producto ; unguibus distinctis.

Var. A. Thoracis vittis duabus obsoletis, pedibus nigris.

Long. $3\frac{1}{2}$ lin.

Hab.—Queensland, Moreton Bay.

Body clothed with adpressed, narrow obtuseiform scales, those on the legs, breast, and abdomen nearly linear. Head between the eyes scarcely produced, obtuse ; basal half of antennæ obscure rufo-piceous. Thorax about one-third longer than broad, cylindrical, scarcely narrowed anteriorly, sides nearly parallel ; surface deeply foveolate-punctate. Elytra subcylindrical, rather shorter and broader than in *E. Odewahnii*, less produced at the apex, the apex of each elytron forming an acute tail ;

upper surface sculptured as in the preceding species. Claw large and distinct, articulating freely with the third joint; outer edge of tibiæ stained with black.

E. normalis resembles closely in form *E. albipennis*; it may be known at once from that insect, as well as from *E. Odewahnii*, by the free claw joint.

In the two specimens that I possess of this species, the thorax differs somewhat in form; in one the thorax is distinctly shorter, and the sides are bisinuate; this difference is probably sexual.

Eurispia Howittii.

Filiformis, subcylindrica, nigra, nitida, albo-squamosa; capite ante oculos vix producto, vertice nigro-piceo, pedibus (tarsis exceptis) abdomineque pallide rufopiceis; thorace elytrisque albo-fuscis; thorace subconico, minus crebre foveolato-punctato, medio vittâ nigro-piceâ ornato, lateribus vix sinuatis, albo-lineatis; elytris subcylindricis, extus albo-limbatis, striatofoveolatis, interstitiis apicem versus subcostatis, apice attenuatis, utrisque in caudam acutam dorso carinatam productis; unguibus distinctis.

Long. $3\frac{2}{3}$ lin.

Hab.—Melbourne.

Body clothed with adpressed, narrow, white obcuneiform scales, those on the legs linear. Thorax nearly a third longer than broad, subconic, sides slightly converging from base to apex, upper surface less closely punctured than in *E. normalis*, lateral border slightly thickened, white. Elytra attenuated at the apex, each produced into a long acute tail; surface deeply striatefoveolate, interspaces behind the middle costate, the costæ uniting near the apex of the elytron into a single strongly raised ridge, which runs along the caudal spine to its apex.

Closely allied to the last described species, differing principally in the more conical and less closely punctured thorax, and in the absence of the elevated costæ on the anterior half of the elytra; it possibly may be a local variety.